



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,157	04/04/2001	John J. Hart III	E00366/70005 JNA	4012

23628 7590 01/31/2006  
WOLF GREENFIELD & SACKS, PC  
FEDERAL RESERVE PLAZA  
600 ATLANTIC AVENUE  
BOSTON, MA 02210-2211

EXAMINER

PYZOCHA, MICHAEL J

ART UNIT PAPER NUMBER

2137

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/826,157

Applicant(s)

HART ET AL.

Examiner

Michael Pyzocha

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 112-117 and 120-143 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 112-117 and 120-143 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

Art Unit: 2137

**DETAILED ACTION**

1. Claims 112-117 and 120-143 are pending.
2. Amendment filed on 12/05/2005 with a request for continued examination has been received and considered.

***Claim Rejections - 35 USC § 112***

3. The rejections under the second paragraph of 35 U.S.C. 112 have been withdrawn based on the filed amendment.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 133-139 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 133-139 relate to the arrangement of data on a computer readable medium, which does not constitute statutory material under 35 USC 101.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2137

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 112, 115-117, 122-123, 126-143 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moskowitz et al (US 5889868), further in view of Senoh (US 6240121), and further in view of Girod et al (US 5809139).

As per claims 112, 133, 140, Moskowitz et al discloses identifying a plurality of possible placement locations in the title data based on characteristics of the title data; (randomly) selecting a plurality of placement locations from the plurality of possible placement locations (see column 5 line 59 through column 6 line 8; column 7 lines 29-39; column 10 lines 11-14; column 11 lines 22-26 and column 12 lines 19-25).

Moskowitz et al fails to disclose randomly selecting a plurality of number to frequency modulation relationships.

However, Senoh teaches randomly selecting a plurality of number to frequency modulation relationships (see column 2 lines 28-44).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use Senoh's method of

Art Unit: 2137

randomly selecting number to frequency relationships in the method of Moskowitz et al.

Motivation to do so would have been to make it difficult to detect the watermark data (see column 4 lines 31-48).

The modified Moskowitz et al and Senoh system fails to disclose frequency modulating at least portion of the title data at each of the plurality of placement location with a modulation derived by applying one of the plurality of number to frequency modulation relationships to the identification data.

However, Girod et al teaches frequency modulating title data with identification data (see abstract).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use Girod et al's method modulating data with the modified Moskowitz et al and Senoh system.

Motivation to do so would have been to allow watermarking of pre-compressed data (see abstract).

As per claim 115-116, the modified Moskowitz et al, Senoh and Girod et al system discloses decoding at least portion of the audio title data (see Senoh column 6 lines 18-26).

As per claim 117, the modified Moskowitz et al, Senoh and Girod et al system discloses the identifying step includes scanning the audio title data to determine the plurality of

Art Unit: 2137

locations where one of a frequency deviation between channels of audio title data is less than a predetermined frequency deviation and time intervals within the audio title data for the time-frequency modulating the audio title data where the time/frequency modulation of the audio title data is not discernible to a human ear (see Moskowitz et al column 9 lines 53-58).

As per claims 122-123, the modified Moskowitz et al, Senoh and Girod et al system discloses encoding watermarked audio title data and combining watermarked title data with the remainder of the audio title data (see Girod et al column 3 lines 1-15).

As per claim 126, 135-136, Official Notice is taken that it would have been obvious at the time of the invention to one skilled in the art to burn a selected medium with the watermarked title data. Motivation to do so would have been to allow for the distribution of the watermarked data.

As per claim 127, the modified Moskowitz et al, Senoh and Girod et al system discloses transmitting the data to a customer (see Girod et al figure 1).

As per claim 128, the modified Moskowitz et al, Senoh and Girod et al system discloses receiving a decryption key and

Art Unit: 2137

decrypting encrypted title data to provide the title data (see Moskowitz et al column 5 line 59 through column 6 line 8).

As per claim 129, the modified Moskowitz et al, Senoh and Girod et al system discloses the step of decoding encoded title data to provide the title data (see Girod et al column 3 lines 1-15).

As per claims 130-132, the modified Moskowitz et al, Senoh and Girod et al discloses selecting an entry of a set of relationships (see Senoh column 2 lines 28-44).

As per claim 134, the modified Moskowitz et al, Senoh and Girod et al system discloses the modulated data is not perceptible to a human listener (see Senoh column 4 lines 32-48).

As per claim 137, the modified Moskowitz et al, Senoh and Girod et al system discloses transmitting the data over a network (see Girod et al column 4 lines 35-50).

As per claim 138, the modified Moskowitz et al, Senoh and Girod et al system discloses the plurality of locations are random (see Moskowitz et al column 5 line 59 through column 6 line 8).

As per claim 139, the modified Moskowitz et al, Senoh and Girod et al system discloses the modulation schemes are random (see Senoh column 2 lines 28-44).

As per claims 141-143, the modified Moskowitz et al, Senoh and Girod et al discloses receiving a decryption key and decrypting the encrypted title data to provide the title data (see Girod et al column 3 lines 1-15).

8. Claims 113-114 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Moskowitz et al, Senoh and Girod et al system as applied to claim 112 above, and further in view of Mizikovsky (U.S. 5,748,734).

As per claim 113, the modified Moskowitz et al, Senoh and Girod et al system discloses generating a watermarking key that is a combination of the customer identification data, and the randomly selected frequency modulation and number relationship (see Moskowitz et al column 5 line 59 through column 6 line 8).

The modified Moskowitz et al, Senoh and Girod et al system fails to disclose storing the watermarking key in a secure database.

However, Mizikovsky teaches storing a key in a secure database (see column 7 lines 57-67).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to store the modified Moskowitz et al, Senoh and Girod et al system's key in the secure database of Mizikovsky.



Art Unit: 2137

Motivation to do so would have been to allow for the verification of the key (see Mizikovsky column 6 line 57 through column 7 line 13).

As per claim 114, the modified Moskowitz et al, Senoh, Girod et al, and Mizikovsky system discloses the step of generation the watermarking key includes generating a unique watermark key for each watermarked title data (see Moskowitz et al column 5 line 59 through column 6 line 8).

9. Claims 120-121 and 125 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Moskowitz et al, Senoh and Girod et al system as applied to claims 112, 117 above, and further in view of Miller (US 6263087).

As per claims 120-121 and 125, the modified Moskowitz et al, Senoh and Girod et al system fails to disclose the use of a reference and watermarked channel and decoding the watermark using the reference channel.

However, Miller teaches such channels (see column 2 lines 15-38).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use Miller's channels in the modified watermarking system of Moskowitz et al, Senoh and Girod et al.

Art Unit: 2137

Motivation to do so would have been to use correlations and thresholds to decode the watermark (see column 2 lines 15-38).

10. Claim 124 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Moskowitz et al, Senoh and Girod et al system as applied to claim 116 above, and further in view of Davis et al (US 6611607).

As per claim 124, the modified Moskowitz et al, Senoh and Girod et al system fails to disclose combining the audio and video data together.

However, Davis et al teaches combining audio and video together (see column 1 lines 55 through column 2 line 10).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine the audio of the modified Moskowitz et al, Senoh and Girod et al system with the video of Davis et al. Motivation to do so would have been to control the processing of the combined multimedia signal (see Davis et al column 1 lines 55-65).

### ***Response to Arguments***

11. Applicant's arguments with respect to claims 112-117 and 120-143 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2137

12. Applicant's arguments filed 12/05/2005 have been fully considered but they are not persuasive. Applicant argues the rejection of claims 133-139 under 35 USC 101 is not proper. Applicant argues that claimed limitations recite structural and functional interrelationships however the claimed limitations are merely describing characteristics of the watermarked data, which is stored on the computer readable medium. This watermarked data does not cause a computer to perform any function, so it is non-functional and therefore non-statutory under 35 USC 101.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pyzocha whose telephone number is (571) 272-3875. The examiner can normally be reached on 7:00am - 4:30pm first Fridays of the bi-week off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2137

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJP

  
EMMANUEL L. MOISE  
SUPERVISORY PATENT EXAMINER